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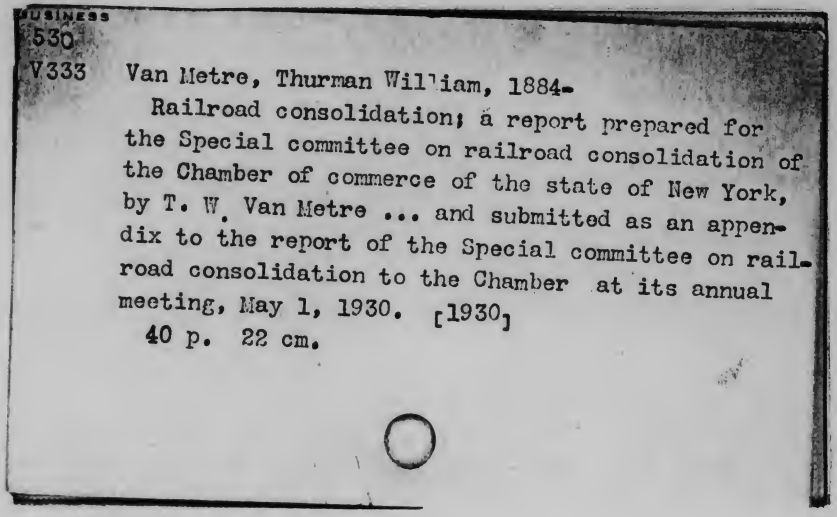

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Railroad Consolidation

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Railroad Consolidation

A Report prepared for the
Special Committee on Railroad Consolidation
of the
Chamber of Commerce of the
State of New York

by

T. W. VAN METRE
Professor of Transportation, School of
Business, Columbia University

and submitted as

an Appendix to the Report of the
Special Committee on Railroad Consolidation
to the Chamber at its Annual Meeting
May 1, 1930

Business

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REPORT ON RAILROAD CONSOLIDATION

The Transportation Act of 1920 reversed the traditional policy of the United States with respect to railroad consolidation. For many years previous to the enactment of this statute, the Federal Government had insisted that competition should prevail to the fullest extent in the railroad business as well as in other fields of business enterprise, and Congress had passed many laws prohibiting acts or practices which might in any way interfere with the fullest play of competitive forces in the railroad service. The first Federal law for railroad regulation, the Act to Regulate Commerce of 1887, unconditionally forbade the pooling of traffic or of revenues by railroad companies; the Sherman Anti-Trust Law of 1890, as interpreted by the courts, prohibited rate agreements among competing carriers and prohibited the combination of competing lines. The Clayton Anti-Trust Law of 1914 further emphasized this repressive policy in provisions which forbade one railroad company to acquire directly or indirectly the stock of another if the effect would be to lessen competition, and also forbade a holding company to acquire the stocks of two or more carriers, if the acquisition would result in a substantial diminution of competition.

In the Transportation Act of 1920, this long-continued policy of restriction was abruptly changed. The prohibition of pooling was repealed and such pooling agreements as would meet with the approval of the Interstate Commerce Commission were to be permitted. The policy of discouraging railroad combination and consolidation was discarded and in its place was substituted a policy which not only permitted but positively encouraged consolidation.

In the first place, the law gave the Interstate Commerce Commission power to authorize one railroad, upon application and after hearing, to acquire control of one or more other railroads under lease or by the purchase of stock or "in any other manner not involving the consolidation of such carriers into a single system for ownership and operation," the acquisition to be under "such rules and regulations and for such consideration and on such terms" as the Commission might deem just and reasonable. Under this form of combination the controlled road would not lose its corporate identity, and presumably could be separated from the controlling company if such separation should become expedient. This part of the law made possible a gradual process of railroad "unification" which the courts might have declared illegal if accom-

plished without the specific authorization of the Interstate Commerce Commission.

The consolidation section of the Transportation Act, however, went far beyond authorizing the Commission to give approval to occasional projects of unification to be accomplished by lease or purchase of stock. The new consolidation policy which Congress proposed to establish was one under which the railroads were not only to be permitted to combine with one another, but were invited and urged to do so. It was even advocated by some members of Congress that they be compelled to do so. What Congress desired was to bring about such railroad consolidation as would result in a great reduction of the number of independent railroad lines in the country. This was the essence of the new policy.

The statute provided for a method of procedure by which it was hoped that the new policy could be and would be carried into effect. Under the method prescribed the interpretation of the precise meaning of the consolidation policy was left largely to the Interstate Commerce Commission. That body was also entrusted with the duty of directing and supervising the actual process of consolidation.

The Commission was ordered to prepare and adopt, as soon as possible, a plan for the consolidation of all the railroads of the continental United States into a "limited number" of systems. The only other instructions which the statute conveyed to the Commission with respect to the preparation of a plan were that "competition shall be preserved as fully as possible and wherever practicable existing routes and channels of trade and commerce shall be maintained," and that the systems "shall be so arranged that the cost of transportation as between competitive systems and as related to the values of the properties through which the service is rendered shall be the same, as far as practicable, so that these systems can employ uniform rates in the movement of competitive traffic and under efficient management earn substantially the same rate of return upon the value of their respective railway properties."

The statute outlined concisely the procedure which the Commission was to follow in devising a plan. It was first to prepare and make public a tentative plan of consolidation, upon which it was to hold hearings open to all persons who might desire to file or present objections. After the close of the hearings it was to adopt and make public a complete plan of consolidation, but it was authorized to make any modification in this complete plan which later it might think to be desirable.

The Act then provided that after the adoption of the complete plan it would be lawful for two or more carriers by railroad, subject to the Interstate Commerce Act, "to consolidate their properties or any part thereof into one corporation for the ownership, management and operation of the properties," provided the proposed consolidation should be in harmony with the complete plan,

should receive the specific approval of the Commission, and should comply with certain conditions which the Act imposed with respect to the capitalization of the corporation owning the consolidated properties.

Shortly after the Transportation Act was passed the Commission employed Professor W. Z. RIPLEY of Harvard University to make a study of the problem of railroad consolidation in the United States and to prepare a report upon the subject embodying his recommendations as to a comprehensive plan of integrating the numerous railway lines of the country into a limited number of systems. After an extended investigation, Professor RIPLEY filed such a report and on August 3, 1921, the Commission made public its tentative plan of consolidation, which followed closely, though not exactly, the suggestions made by Professor RIPLEY. Hearings on the tentative plan began in April, 1922, and continued until December, 1923. After several years of delay the Commission finally prepared and adopted a complete plan of consolidation which it made public on December 9, 1929.

The adoption of the final plan has focused public attention sharply upon the question of railroad consolidation. It has stimulated so much discussion and aroused so much interest that it seems an opportune time has come for the country to undertake a serious reconsideration of the whole subject of railroad consolidation, and particularly of the policy of consolidation adopted in 1920.

The adoption of the complete plan, in itself, has been of little significance. The action was, as a member of the Commission described it, little more than a "procedural step." The publication of the plan will not necessarily hasten consolidation nor retard it, nor will it definitely fix the pattern which consolidation is to follow. Any railroad combination which receives the approval of the Commission, whether or not it is suggested in the plan as it now stands, can still be legally effected. And any combination which the plan suggests, if actually proposed by interested carriers, must be made the subject of a public hearing and must receive the specific approval of the Commission before it can be effected. The plan probably discloses a predisposition on the part of the Commission in favor of or against any given combination, but the predisposition, it is admitted, may be overcome by evidence. The only technical importance which can be attached to the complete plan is that its adoption makes it possible now for railroads to combine by actual "consolidation" rather than by "unification." However, because of technical difficulties attendant upon consolidation under the present law, it is probable, unless the law is changed, that for several years all railroad combinations of importance will be effected by a process of unification.

Why, then, it may be asked, if the adoption of the complete plan has so little significance, is there any need for serious consideration of the consolidation policy of the Transportation Act? As a matter of fact, the adoption of the complete plan has little or

nothing to do with it, except that, as said before, it has aroused and stimulated public interest. The point is that the United States has had for ten years a certain policy of railroad consolidation. The purpose of that policy, when adopted, was to bring about the consolidation of the railroads of the country into a "limited number" of systems, according to some definite "plan." That object has not been accomplished, and there is little promise that it will be accomplished in the near future. The country has just drifted along, and as a result many changes have taken place in the railroad situation which have not had a beneficial effect upon the railroad business nor upon business as a whole.

Now the consolidation policy adopted in 1920 either should be or should not be carried out. The uncertainty and hesitation should end. The indecisive course now being pursued is having a disturbing effect and it may have many highly undesirable consequences. The time is ripe for sober second thought. The nation should review the entire situation and endeavor to decide what should be done.

To suggest that the consolidation provisions of the Transportation Act should be modified, or even repealed, would not be to charge that a great mistake was made when the law was enacted. Conditions have changed since 1920. Because of changed conditions, a policy which seemed to be highly desirable ten years ago may seem neither desirable nor appropriate at the present time. Or it may be that the experience of the intervening years has shown that even if the consolidation policy adopted in 1920 was sound and wise, the methods of procedure which the law prescribed for giving effect to that policy are not such as to give promise of satisfactory results. A brief review of the conditions of the railroad business in 1920 which led to the adoption of the new consolidation policy, a survey of the changes which have taken place since the law was passed, and an examination of the record of experience under the law may disclose evidence sufficient to justify a belief that the consolidation policy of the Transportation Act should be abandoned or modified, or if not, that the procedural methods should be changed.

At the beginning of 1920 virtually all the railroads of the United States were in a financial condition which may truly be described as desperate. Only the fact that the government was still operating the roads, with the resources of the Federal Treasury available to meet current deficits, was saving the railroad industry from almost universal bankruptcy. The approaching termination of the period of government operation made it necessary for Congress to take steps to insure the financial rehabilitation of the railroad transportation business. A plan of permanent relief had to be devised, and it was necessary also to provide temporary aid pending the time when measures for permanent relief could be made effective. Temporary support was afforded by means of a six months' guaranty of an income equal to that which the railroad companies

received during the period of government operation. Provision for permanent financial relief was embodied in a rule of rate making written into the Transportation Act for the guidance of the Interstate Commerce Commission.

This rule of rate making was designed to bring about the establishment of a level of rates and fares which would enable the railroads to earn a living. In the endeavor to bring into effect a reasonable level of rates by legislative process Congress was confronted with the fact that there were many railroads in the country of widely varying degrees of strength. A rate level upon which a strong railroad might survive would starve a weak line; while a rate level which would enable a weak railroad to prosper would result in an objectionably high return to a strong system. Congress felt duty bound to preserve all weak railroads. To meet the situation created by reason of the unequal strength of existing lines it directed that the level of rates initiated by the Commission should be such as to yield a fair return upon the value of the railroads as a whole (or as a whole in such districts as the Commission might designate) with the further provision that if the annual return of any single railroad company should exceed six per cent. of the value of its property, one-half of the excess amount should be recaptured by the government.

Under this rule of rate making it was hoped that the more advantageously situated railroads would recover their financial health, and that the weaker lines could at least struggle along for a time and the communities which they served not be deprived entirely of railway transportation. But the rule of rate making was to be only a temporary solution of the weak railroad problem. The final solution was to come by the complete elimination of the weak railroads through the process of consolidation. All the railroads of the country were to be combined in a "limited number" of systems with such an admixture of strength and weakness in each system that all would receive approximately the same rate of return upon the value of their properties. The real purpose of consolidation, and in the minds of those members of Congress who gave the most careful thought to the subject, the only purpose, was to save the weak railroads by uniting them with their stronger and more prosperous neighbors. It was hoped, and in some quarters believed, that consolidation would result in certain economies of operation which would make possible a reduction of rates at some future time, but this point received little consideration while the Transportation Act was being written and passed.

To understand clearly the reason for the adoption of the consolidation policy it is necessary to bear in mind that at the time it was being considered the railroads were in a destitute condition. There were no financially strong railroads. They were all weak; some of them much weaker than others. There were real grounds for fear that unless positive action of some kind were taken to lend support to the crippled railroad business it would be only a question of time until hundreds of communities throughout

the country would be deprived of a service indispensable to their existence. It was quite commonly thought that consolidation offered the only feasible method of affording permanent relief unless railroad rates were raised to fanciful levels. Senator CUMMINS, one of the authors of the Transportation Act, was so firmly convinced that consolidation afforded the only means of preserving railroad service in many sections of the country and of saving the railroad business as a whole from government ownership or from financial disaster that the bill which he introduced provided for compulsory consolidation, and actually prescribed within limits the number of systems into which the railway net should be divided. Conditions were desperate, and it was almost inevitable that the counsel of desperation should prevail.

Had the authors of the Transportation Act been able to foresee the recovery which the railroads were shortly to enjoy, a consolidation policy so completely at variance with the traditional governmental attitude would probably not have found its way into the Transportation Act. The railroads did not long remain in the necessitous state which prevailed in 1920. The condition which consolidation was designed to remedy was corrected before the remedy could be applied. Higher rates, increased business activity, better facilities, and improved methods of operation raised the railroads to a level of comparative prosperity long before the Interstate Commerce Commission was ready to prepare and adopt a complete plan of consolidation. The weak railroads, as well as the strong, felt the quickening touch of these influences, and with the general improvement in the entire field of railway transportation, the financial reorganization of some of the lines, and the absorption of a few of the most outstanding weak lines into stronger systems, the problem of the weak railroads ceased to have any great significance. There now remains only a scattered handful of roads which are in such condition as to be an object of serious concern. Certainly there is no element of weakness in the present railroad situation of such magnitude as even faintly to suggest the need of resorting to remedial measures of an heroic nature.

It was partly because of the pronounced improvement in the condition of the railroad industry after 1921 that the Interstate Commerce Commission delayed the preparation of the complete plan of consolidation. The intimate relationship between railroad conditions and the question of consolidation was clearly indicated in the concurring opinion which Commissioner MCMANANY wrote to accompany the decision embodying the complete plan. He said: "The point I am leading up to in this brief reference to conditions surrounding the birth of the consolidation provision is that I doubt if anyone will contend that under present conditions the consolidation provisions would have become a part of the law. Transportation conditions would not have justified it." Commissioner EASTMAN, in his concurring opinion, doubted the wisdom of "experimenting with a reasonably satisfactory situation by radical

attempts to promote consolidation out of hand on a grandiose scale."

Even had the railroads not been able to recover from the state of poverty which in 1920 seemed to threaten their existence, the advisability of relying upon wholesale consolidation as a corrective might well be questioned. Not only is there reason to doubt the economic justice and morality of a policy which would compel strong and successful railroads and the communities they serve to assume responsibility for the support of unwise and improvident ventures elsewhere, but there is reason also to doubt the efficacy of general consolidation as a permanent solution of the weak railroad problem. If the railroads as a whole are earning a return so meager as to fall far below the level of reasonableness, it is difficult to see how the mere corporate union of many destitute lines with one or more lines so fortunately circumstanced as to be able to remain solvent would be greatly helpful. The unification could not possibly result in any substantial increase of the total net return, and instead of a few self-sustaining and several poverty stricken roads, there would be a weak system much weaker than the strongest and probably only a trifle stronger than the weakest of the constituent lines. Moreover, even if the railroad earnings as a whole were sufficiently large to make possible the establishment by consolidation of a number of fairly prosperous systems, there is no assurance that the weak railroad problem would be permanently solved. Competent and skillful management on a railroad system is not a constant quantity. A railroad may be weak today and strong tomorrow, and mere size is no guarantee against the development of weakness. If the railroads of the United States should be consolidated this year into twenty great systems of equal strength, does it follow that ten years hence they would still be equally strong? If one of the systems should begin to show alarming signs of weakness, should there be a general revision of all the systems for the purpose of restoring equality, or should the weak system be dismembered and parceled out among the other systems? It is easy to see the complex difficulties in which the country might become involved by relying upon consolidation as a means of saving weak railroads.

It is somewhat beside the point, however, to undertake a discussion of consolidation as a solution of the weak railroad problem. The important fact for consideration just now is that this problem, which was almost exclusively responsible for the adoption of the consolidation policy of 1920, no longer exists. The authors of the Transportation Act were unquestionably sincere in their belief that consolidation afforded the only means by which the tottering railroad industry could be saved from certain disaster. There were many others who shared this belief. Events have proved that they were mistaken. General consolidation was not needed to solve the weak railroad problem. It was solved without consolidation. But the consolidation law is still in effect, and unless it is modified or repealed, the effort to carry out its pro-

visions will continue, regardless of the fact that the particular need it was designed to meet has disappeared. The mere fact that the consolidation policy adopted in 1920 was not needed, and never even had the chance to serve its intended purpose, more than justifies the belief that it should be reconsidered.

Another reason for reconsidering the consolidation provisions of the Transportation Act lies in the fact that the law has not operated as its authors hoped and expected. They apparently believed that the method of procedure which they devised and placed in the law for bringing about general railway consolidation would produce the desired result within a short period of time. They seemed to think it would be a comparatively simple matter for the Commission to prepare a satisfactory plan of consolidation, preserving competition and maintaining existing routes and channels of trade and commerce, and that once the plan was prepared and adopted it would quietly be accepted by the interested carriers and soon put into effect. That is, Congress believed the Commission could bring about consolidation merely by suggestion. In this belief Congress was clearly mistaken, as events have proved, for the Commission has so far found it quite impossible to devise a consolidation plan all features of which the carriers are willing to accept.

If the Commission did not begin to suspect during the course of the preparation of its tentative plan that the task which Congress had thrust upon it was impossible of accomplishment, it did not have to proceed far with the hearings upon that plan before discovering that it had failed to perform the task in a manner satisfactory to everybody concerned. The hearings produced little but evidence of almost universal dissatisfaction with the tentative plan. Supposedly strong railroads, selected as the main stems of projected systems, objected because under the plan they received nothing at all or received what they did not want, while what they most earnestly desired was awarded to some competitor. Supposedly weak railroads protested against being lodged with companions with whom they had no desire to associate. Commercial centers and producing regions feared that the proposed plan, if carried into effect, would result in the diminution of railroad service, in the readjustment of rates, and in the diversion of business. The plan as a whole was approved by nobody, and no single feature of importance escaped vigorous criticism.

So impressed was the Commission with the widespread disapproval of the tentative plan that for some years it made no effort to prepare and adopt a complete plan as the law plainly required it to do. In several of its annual reports it called the attention of Congress to the impossibility of accomplishing such a task in a satisfactory manner, and pointedly requested that the law be amended to free it of the duty of making another attempt. Congress took no definite action upon these repeated requests. Bills dealing with the subject of railroad consolidation, which contained provisions such as the Commission desired, were introduced from

time to time, but the press of other matters, the exigencies of politics, and perhaps an unfortunate lack of a proper interest in the consolidation problem both in and out of Congress combined to prevent final action upon the proposed measures. Because of the continued refusal of Congress to meet its wishes, the Commission deemed it inadvisable to defer any longer the preparation of a complete plan of railroad consolidation, and it therefore finally prepared and adopted the plan published in December, 1929.

It is much to be doubted if the Commission's second effort to recast the railroad map of the country had any happier results than its first effort. No hearings upon the complete plan were required, and none were held. Consequently there is no voluminous official record of protest, objection and criticism, such as that which the tentative plan evoked. A great many persons, railroad officials and others, who have a vital interest in the consolidation problem, have either refrained from discussing the complete plan, or have been non-committal in their remarks. Nevertheless the plan has been widely discussed in the daily press and elsewhere, and in some respects it has been criticized even more severely than the tentative plan. Probably nobody has condemned it more vigorously and emphatically than Professor RIPLEY. The only marked expressions of approval have come from a few railroad interests with whose ambitions for expansion the plan happens to coincide.

That the difficulties which the Commission encountered in its attempt to devise a satisfactory consolidation pattern were of an insurmountable nature is clearly revealed in the brief text of the decision which accompanied the complete plan. It was stated that not all the members of the Commission agreed to all of the plan and that while there was a clear majority in favor of each part, the majority was not always the same. The four concurring or partly concurring opinions were frankly critical of the final result. All of the concurring Commissioners sharply disapproved of various features of the complete plan and offered alternative suggestions; two felt that certain important recommendations in the plan were of doubtful legality, and one concurred because the plan "has many good features, because it is necessary under the law to adopt a plan, and because it is not so important, after all, whether or not it is the best plan that could be devised."

It may be that the difficulty of preparing a plan acceptable to the carriers would not have been so great if the Commission had merely tried to preserve the integrity of existing financially strong lines and to divide among them in the most equitable manner possible the roads of minor importance. But no grouping of this nature was attempted. For some reason a majority of the Commission believed that the words "limited number" as used in the law, meant "smallest possible number"; at least that is the impression conveyed by both the tentative and the complete plan. It would probably have been possible for the Commission to prepare a consolidation plan providing for forty or fifty systems, unequal

in mileage, of course, and unequal too in total traffic and revenue, but nevertheless having approximately the same "cost of transportation as between competitive systems and as related to the values of the properties." Such a plan might have been accepted, in a very large measure, by the carriers. But the Commission decided, in preparing both its tentative and its complete plan, that it should provide for the establishment of some nineteen very large systems. It almost seems as if it took the largest existing system as a model, and endeavored, as nearly as possible, to pattern the other systems after it.

The interpretation which the Commission placed upon the law multiplied many times over the difficulty of obtaining the voluntary acceptance by the carriers of the complete plan, or of any future plan in which the number of systems is no greater. The creation of a small "limited number" of systems necessitates not only the distribution of many short railroads of minor importance among the proposed systems but also the grouping into single systems of several large and small roads of great wealth and strength; it requires in some instances, the dismemberment of a road and the distribution of its parts; it involves taking important subsidiary or closely allied lines from one railroad and giving them to another. In both the tentative and the complete plan many of the assignments which the Commission felt impelled to make, in order to preserve a proper balance among the proposed great systems, aroused such intense opposition and resentment among the carriers as to destroy all hope that the complete plan will ever be accepted in its entirety. Efforts to carry out some of the suggestions of the plan will be resisted by every legal device which can be employed for the purpose.

By insisting upon a consolidation plan providing for a small number of systems the Commission found it impossible, in several instances, to avoid including closely parallel and competing lines in the same systems. In the complete plan there are groupings of parallel lines which make it doubtful if the Commission has obeyed that portion of the law which specifically requires that in the division of railways under the plan "competition shall be preserved as fully as possible." Members of the Commission, even, do not believe the law has been properly observed, one of them declaring: "But we should not, in order to open the door to lawful consolidations propose consolidations which are themselves unlawful, and that I think we have done." Whether or not the departure from the mandate of Congress has been such as to furnish grounds for challenging the legality of some of the consolidations proposed in the complete plan, the plan promises such suppression of competition, if carried into effect, that many of its features have met with strong public disapproval.

To the difficulties occasioned by public disapproval and by railroad opposition, which the complete plan has encountered, or will encounter before it can be carried out, must be added the practical

problems of financial adjustment which must be dealt with. The chief provision of the Transportation Act with regard to the financial organization of consolidated systems is: "The bonds at par of the corporation which is to become the owner of the consolidated properties, together with the outstanding capital stock at par of such corporation, shall not exceed the value of the consolidated properties as determined by the Commission. The value of the properties sought to be consolidated shall be ascertained by the Commission under section 19a of this Act, and it shall be the duty of the Commission to proceed immediately to the ascertainment of such value for the properties involved in a proposed consolidation upon the filing of the application for such consolidation."

This section of the law, strictly interpreted, means that no consolidation can take place under the provisions of the Transportation Act until the valuation of the railroads to be consolidated is completed. In view of the legal entanglement in which the entire question of railroad valuation is at present involved, it will probably be many years before the Commission will be able definitely to ascertain the value of a railroad for consolidation or for any other purpose. However, this particular obstacle of the law can be and doubtless will be avoided, in case of need, by the simple expedient of permitting the combination of railroads through the so-called process of unification rather than by technical consolidation. But the problems of financial adjustment—the evaluation of securities of constituent lines, the establishing of ratios of exchange satisfactory to stockholders and bondholders, the organization of the financial structures of the parent companies, the conduct of the financial operations made necessary because of past transactions and because of intercorporate holdings and other financial relationships which must be dissolved in order to carry out the various allocations and re-allocations of the complete plan—all these problems and many others will be present regardless of the method by which the gigantic systems are created. One is inclined to wonder in passing just what the nature of the financial adjustment would be in the case of the Chicago, Indianapolis and Louisville (Monon) Railroad, in which, under the complete plan, the Baltimore and Ohio System is awarded an undivided half interest, and the Southern System and the Atlantic Coast Line-Louisville and Nashville System are each awarded an undivided one-fourth interest.

The Commission took so much time for the two initial steps which were necessary in applying the method of procedure prescribed in the Transportation Act for bringing about general consolidation—adopting the complete plan eight years after the tentative plan was published and nearly ten years after the law was passed—that it has been impossible thus far for any consolidations actually to be effected under the law. The Commission has given its approval to a number of projects of unification, under the unification provisions of the Transportation Act, but the grand

program of comprehensive consolidation has not gotten beyond the planning stage.

It is impossible therefore, to determine whether or not the consolidation method provided in the law will successfully accomplish what its authors desired. But there is good reason to believe that extensive consolidation by this method cannot be achieved in the near future. Certainly it will not be an easy matter to put the present complete plan fully into effect, and it is highly doubtful if the carriers will accept any other comprehensive plan in which the proposed systems resemble in number, size and general character the systems suggested in the present plan.

What has been said is enough to warrant the belief that if the consolidation policy of the law is actually to be carried out within a reasonable time, another method of procedure must be adopted. The present method should be given up, however, not alone because there is little probability that it will successfully accomplish its intended purpose. It should be abandoned because of certain results which have already followed the efforts to make use of it, and because of certain effects which its continued use is likely to have. The scheme for bringing about consolidation by having the Interstate Commerce Commission draw up a plan under which the carriers might voluntarily merge their properties has not only failed to produce consolidation; it has produced an undesirable state of affairs in the railroad business; and unless it is abandoned in the near future it bids fair to have further effects of a distinctly harmful character.

In the first place the mere announcement by the Commission of its tentative plan, providing for eighteen or nineteen systems, and suggesting as it did the dissolution of many alliances and intercorporate affiliations of long standing, and the formation of new partnerships and associations, many of which had never before been seriously contemplated, stimulated pronounced activity among all the major railroad interests of the country. The striking feature of this activity, however, was that while some of it was intended to pave the way for effecting consolidations suggested in the tentative plan, by far the most of it was for the purpose of forestalling and preventing those consolidations and of forestalling and preventing other consolidations which various interests endeavored to promote as alternatives to the groupings outlined in the tentative plan. By awakening slumbering animosities and creating new ones, by stimulating rivalry and contention, the tentative plan had a disturbing influence on the transportation business. Railroads began to engage in bitter struggles to gain physical and financial strength at the expense of others, to improve strategic positions and to anticipate the designs of ambitious rivals. While the ostensible purpose of the consolidation policy was to save the weak lines, the first important effect of its adoption was to precipitate some virulent contests among existing large railroads for the control of a number of small or medium-sized financially strong

lines, which did not need to be "saved" by absorption into a large system. Old alliances were broken up and new ones formed, technically legal means were devised to accomplish illegal ends, in order that control of competing lines might be established and maintained; stability and order gave way to strife and confusion, the general result being that consolidation procedure seems to have created more railroad problems than consolidation will ever solve.*

Another undesirable and probably harmful result of the attempt to carry out by suggestion an elaborate plan of consolidation may come because of the apparent disposition of the Commission to approve any project of unification of two or more lines, if these lines

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* The contest, which the publication of the tentative plan precipitated among the interests representing the major trunk lines and several smaller lines of great strategic importance in the Eastern district, has been one of the most vigorous struggles in American railroad history. It has produced more changes in railroad control than have ever before been effected in so short a period of time. These changes have destroyed all hope that the Commission's complete plan of consolidation in the east can ever be carried out, and they have also led to a most undesirable condition of railroad monopoly.

The most striking shifts have been those brought about because of an exceedingly bitter rivalry between the Pennsylvania Railroad on one side and an alliance composed of the New York Central, the Baltimore and Ohio, and the Van Sweringen interests on the other. As a result of this contest, the Pennsylvania, in addition to the 10,500 miles of railroad which it operates directly, has complete control or "working" control of lines operating some 11,000 miles of railroad in the Eastern district and a substantial interest in lines operating 15,000 miles of railroad in the Southern district. Among the lines over which the Pennsylvania has acquired virtually full control since the tentative plan was published are the Wabash, the Lehigh Valley, the Detroit, Toledo and Ironton, and the Pittsburgh and West Virginia. It has working control, it is said, over the New Haven and the Boston and Maine.

To avoid the prohibitions of the Clayton Act, the control of some of the lines competing directly with the Pennsylvania is held through the Pennroad Corporation, a holding company. Its stock is not held by the Pennsylvania, however, but was distributed among Pennsylvania stockholders, under a voting trust agreement lasting until 1939, the president and two other directors of the Pennsylvania acting as trustees. Since the Pennsylvania also has control of the Norfolk and Western, it will be seen that before the systems proposed by the Commission can be established, there will have to be a considerable amount of unscrambling because of the activities of the Pennsylvania alone.

The Van Sweringen interests dominate some 18,000 miles of railroad line. They have obtained control over a few eastern railroads assigned to different systems in the complete plan, and have even extended their sphere of influence far into the West and Southwest by acquiring working control of the Missouri Pacific. The Van Sweringens, too, have made use of affiliated holding companies, the Chesapeake Corporation and the Alleghany Corporation.

By its authority under the Clayton Act the Commission forced the Van Sweringens to turn their stock in the Wheeling and Lake Erie over to a trustee; and the same action was taken with respect to the stock of the Western Maryland purchased by the Baltimore and Ohio. The activities of the affiliated holding companies, however, do not appear to come within the scope of the Commission's authority. They are being made the subject of a Congressional investigation.

are in one of the systems suggested in the complete plan, regardless of whether there is definite prospect that all the unifications necessary to round out the proposed system can be effected. It may well be that the desirability of certain unifications is contingent upon the accomplishment of others. An example of what is meant may possibly be found in the Commission's recent approval of the Baltimore and Ohio's acquisition of the Buffalo, Rochester and Pittsburgh. The Baltimore and Ohio's chief reason for wanting the Buffalo, Rochester and Pittsburgh is that it can be used with the Reading-Jersey Central to help form a new route between New York and the Middle West. Should the Baltimore and Ohio fail in its effort to obtain control of the Reading-Jersey Central, it may be that the public interest would be better served by linking the Buffalo, Rochester and Pittsburgh with some other railroad or by continuing it as an independent line.

The other aspect of this same situation is that the Commission will be inclined to disapprove of any single unification proposal if the lines seeking to unite do not happen to fall within one of the systems of the complete plan. Assuming that the complete plan cannot be carried out, the proposed unification might be quite satisfactory and desirable, but its accomplishment is jeopardized because of the existence of the complete plan.

Thus the adoption of the complete plan may have the result of permitting the consummation of unification projects which in the end will not serve the public interest, and of preventing the consummation of other projects which are quite meritorious.

The same idea may be carried still further. Suppose that out of the twenty great systems proposed in the complete plan, it turns out that only three or four or a half dozen can really be created under the present methods of procedure. The creation of a few of the systems, leaving other lines intact, might result in disturbances of competitive balance and changes in channels of trade which would be injurious both to commerce and to transportation. In other words, conceding the possibility of devising a suitable pattern which comprehensive consolidation should follow, successful accomplishment may depend upon the execution of the design in its entirety. Piecemeal progress, in connection with a single system or in connection with the plan as a whole, if stopped far short of the ultimate goal, may be productive of more harm than good.

The more closely the results achieved under the consolidation provisions of the Transportation Act are scanned, and the more closely the method of procedure prescribed by that law is analyzed, the more evident does it become that amendment or repeal of the consolidation section is imperative. Even if the consolidation policy, which Congress inaugurated in 1920, should still be regarded as commendable and desirable, it is obvious that the method devised of giving effect to the policy is almost hopelessly inadequate.

The fundamental and probably fatal defect of that method lies in the fact that its successful use is dependent upon the voluntary acceptance by the railroads of the country of some "plan" of consolidation. It is impossible to escape the conclusion that if consolidation is to be carried out according to some comprehensive plan, then it is necessary that acceptance of the plan be made compulsory. If acceptance is to be entirely optional, it is better not to have a plan, for experience seems to show that the preparation of a plan, the acceptance of which cannot be compelled, only produces an unwholesome state of affairs in the transportation industry and does little or nothing toward promoting consolidation such as Congress had in mind.

Either the law should be amended to make the acceptance of a consolidation plan, when finally completed, compulsory, or the whole idea of effecting consolidation according to a "plan" should be abandoned.

Conceding the legality of compulsion, as well as the possibility of solving the financial problems and the other practical problems which would have to be solved in order to carry out a general plan of railroad consolidation, the question which arises is whether it is desirable to have the railroads of the United States combined according to some fixed and definite pattern. And it is necessary to add, according to some fixed and definite pattern having the general appearance and character of the plans heretofore framed by the Interstate Commerce Commission. For while the Transportation Act does not specify any particular kind of plan, and though the Commission has explicitly declared that the complete plan is in no sense to be regarded as final, yet is not the Commission's interpretation of the law fairly clear, and is it not possible to say with a reasonable degree of certainty what type of plan the Commission may always be expected to advocate? The tentative plan and the complete plan differ greatly in detail, but the Commission's conception of the law seems to be the same in both plans. Whatever changes in detail it may still make, it is reasonable to believe that its interpretation of the law is such that any finally complete plan which it proposes will be a plan in which the railroads of the country are divided into a relatively small number of gigantic systems roughly equal in mileage, a plan in which strong lines are grouped with other strong lines with the hope of creating systems of formidable strength, a plan in the preparation of which it has not been thought necessary always to avoid the merger of closely parallel competing lines.

The question is, does the country want its great railroad system poured into a mold of this character?

With the elimination of the weak railroads as a factor of importance in the consolidation problem, the only possible advantage to be claimed for the combination of all railroads of the country into a few great systems is the possible saving which might be realized by reason of greater economy of operation. In the past, much

has been made of so-called economies of consolidation, but experience and investigation have shown that many of the claims have been groundless. Not even the most earnest advocates of general consolidation hold out hope that it will be productive of economies large enough to permit of a reduction in freight rates. Without doubt there are instances in which railroads may cut down expenses by combination. Most of this saving, however, can be accomplished by reasonable cooperation in the use of physical facilities, without resorting to consolidation. Certainly there is no justification for a belief that in order to take advantage of the possible economies of consolidation it is necessary to combine all the railroads into gigantic systems such as those proposed by the Interstate Commerce Commission.

The chances are more than even that whatever saving such huge systems might be able to accomplish by virtue of the operating economies of consolidation would be dissipated many times over because of the waste inevitably arising from the difficulty of administering enterprises of such enormous size. That there is a very real relation between size and efficiency in a business establishment has long been recognized. The very fact that some of the largest railroads in the country have found regionalized administration necessary suggests that the cause of economy might be better promoted by reducing the size of some of the greatest railroad systems, rather than by bringing into existence a number of other systems of equal or greater size. A comparison of the small, compact, well-managed railway systems in this country with the larger systems usually shows results favorable to the small system. What Commissioner EASTMAN said is generally true, that "there are strong grounds for the belief that the best results in operating efficiency and service are secured when a railroad system is small enough so that the executive can maintain something like personal contact with the employees all down the line and also with the shippers in the territory served."

Of greater significance than the small gain or loss in operating expense which may be attributable to consolidation are the results which can be expected by reason of the destruction of competition which would occur if such a consolidation as the Commission favors were to be carried out. The remarkable improvement which has taken place in the railroad service of the United States during the past century has to a large extent been the fruit of competition between rival carriers. This competition has been the direct competition of parallel lines, seeking to haul the same traffic; it has also been the indirect competition between widely separated railroads, each seeking to build up the industry and trade of its own territory.

In the past parallel railroads competed with one another both in service and in rates. It has been many years now since competition between such lines took the form of a long drawn out rate war, but there has never been a time when competition in service

did not prevail, and such competition has never been stronger than it is at present. That such competition has a beneficial effect upon railroad service anybody can testify who knows anything about the railroad business or who has ever witnessed the introduction of a competing line into a community previously served by a single railroad. Much of this competition would simply be wiped out under the Commission plan of consolidation. While not all direct inter-railway rivalry would be eliminated, yet hundreds of communities, which now have competitive routes over which to ship, would find that they would become non-competitive points, that they would no longer have the opportunity of making a choice between rival services, and that the advantages which hitherto they have enjoyed by reason of the ability to choose will quickly vanish. When competition in service disappears it will take with it the high quality of service which competition sustains.

But the effects of the elimination of the competitive service of parallel lines would be of minor importance in comparison with the probable effects which many communities would feel because of the influence of wholesale consolidation upon industrial and market competition. Such competition has always been and still is the most powerful of the many factors affecting railway service and rates, and particularly railway rates. In the absence of the direct competition of a parallel line a railroad may be neglectful of some features of its service, but if it is to prosper financially it is compelled to maintain rates which will enable the industries which provide its traffic to thrive and prosper. There are hundreds of industrial communities and inland commercial centers and a few seaports in this country, each of which owes its origin, its progress in the past, and its present prosperity to a single railroad line. Interested chiefly in the territory which it directly serves, the railroad has built up the industry and trade of the region it traverses by giving to producers and merchants service and rates which have enabled them to compete on even terms with merchants and producers located in other districts and served by other railroads. Let such a line be absorbed into some great system with lines serving competing producing and marketing centers, and the competitive advantages, enjoyed by the territory adjacent to the absorbed line, by reason of its independence, would immediately be endangered. The commercial future of a small busy seaport served by a single railroad, which has no other outlet to the sea, is reasonably safe while the railroad is independent. Is it so safe if the railroad is woven into a system which serves two or three large rival ports?

Railroads which must meet the competition of parallel lines or railroads serving restricted areas must maintain a watchful interest in the welfare of the regions they traverse to insure their own prosperity, but a huge system sprawling over a wide expanse of territory, in much of which there is no competition, may give scant attention to many points without entertaining the least fear of

decreasing its net income. How many times in this country have communities encouraged and aided the construction of transportation facilities for the sole purpose of preserving their economic future. How many battles have been waged in the past to prevent transportation agencies from exercising arbitrary control over the economic destiny of particular regions. It seems strange that the nation would be willing to countenance a program of railway integration which would inevitably tend to recreate the very conditions responsible for the most vexatious and troublesome railroad problems of the past. It may be argued, of course, that under modern conditions, regulation will protect the interests of individual communities. But governmental control will never attain the effectiveness of self-interest as a stimulant to industrial enterprise. As a matter of fact, the value and the necessity of competition is recognized in the Transportation Act itself, which requires that competition be "preserved as fully as possible." If competition is worth preserving for one city or for one industrial region, it is worth preserving for others. If competition is not worth preserving, why should a plan of consolidation not just as well provide for three or four great systems, or even for one, as for nineteen or twenty?

Another important reason for opposing the consolidation of the railroads of the United States into a small number of huge systems is that such consolidation will make the constructon of new and more direct main line railroads virtually impossible. It will congeal the present arrangement of railroad routes and give it finality. This country should not yet be ready to concede that its main arteries of transportation should be regarded as permanently fixed. In Great Britain, where the peak of economic development based upon the exploitation of native natural resources has probably been passed, such an attitude is reasonable. But compared with Great Britain, the United States is in the infant stage of industrial and commercial development. The future holds promise of great material progress, with a population and a productive capacity which existing transportation facilities will be entirely inadequate to serve. The time will come when a substantial expansion of railroad facilities will be an unavoidable necessity It would be most unwise for the country to adopt a course which will virtually determine what interests shall for all time exercise control over railroad development. Such a course would mean that the present physical arrangement of the railway net would be frozen, and new facilities would consist chiefly of additional tracks following the present routes. Development would merely follow the path of least resistance, and radical changes, however advantageous they might appear to be, would be impossible of accomplishment.

It is an interesting fact that many of the existing main railroad routes of the United States, and particularly those in the eastern section, are not those which would be selected today. They were

chosen at a time when capital was scarce, when engineering knowledge was limited, when methods of construction were greatly inferior to those now employed. Moreover, the railroads which are now the main lines of some of the great systems, were located solely with reference to limited local needs. Mr. ELISHA LEE, the Vice-President of the Pennsylvania Railroad Company, stated in a recent address to a group of college students, that the creation of the railroad lines east of the Mississippi River was brought about "with little of anything that might be termed the vision of a national system of transportation." The main lines of the east still follow very largely the routes originally selected. The proposal for the construction of more direct lines is usually strenuously opposed by the established systems, the very interests which would be assured of almost absolute control of future development, if consolidation such as that proposed by the Interstate Commerce Commission should become a fact.

The mere suggestion that the present main railway lines should be supplemented in the future by roads following more direct routes meets with the strong objection that the construction of new main lines would have an injurious effect upon the revenues of established systems. Such an objection is not valid. In any field of economic activity new facilities of superior efficiency can be introduced only at the cost of sacrificing facilities of an inferior quality. Such sacrifice is the price of progress. The development of railroad transportation in the United States wiped out investment in canals amounting to many millions of dollars, not to mention investment in stage-coach lines, wagons, steamboats and other transportation facilities. It would have been most unfortunate if transportation development in this country had stopped with the canal. Some time in the not distant future additional railroad facilities will be needed. It would be unfortunate to create a situation now in which vested interests would be able to exercise arbitrary control over future construction and be in a position to prevent development along lines which hold promise of the greatest efficiency and economy. There should be no foreclosure upon future opportunity.

Wholesale consolidation at the present time holds not only the possibility of a prematurely completed physical structure, but also the possibility of a frozen rate structure, in which distance will be the sole factor in the determination of railroad rate relationships. The greatest single factor in American economic progress has been a transportation system built to carry huge quantities of goods over long distances. In none of the other continental land masses has there been a development comparable to that which has taken place in the broad belt of the North American continent occupied by the United States and southern Canada, because it is only there that the facilities for large scale transportation have existed. There transportation has performed its true function of overcom-

ing distance, not precisely in a physical sense, but as an all-important element in production cost. Distance has been a factor in rate making but it has not always been the chief factor. In a sense it may be said that the material progress of America has been possible because of transportation rates in which the element of distance has been largely neglected.

There is at present a marked tendency in the United States to confine industry within a system of strait-jacket rates, made by a rule-of-thumb process, in which distance is the factor of controlling importance, in which such matters as railroad competition, water competition, industrial competition and market competition receive little or no consideration. Elaborate consolidation will make it easier to fasten an inflexible rate structure of this type upon the country because it will destroy the competitive influences which have largely dominated rate making in the past. Under such a scheme of rate making transportation will become the master of industry and trade rather than their servant.

From whatever standpoint it may be considered, the revolutionary proposal of dividing the 250,000 miles of railroad in the United States into a few systems of great size has nothing to recommend it. It offers no advantages; it abounds in harmful possibilities.

However desirable a substantial reduction in the number of operating railroad companies in the United States may be, it seems clear that the plan of accomplishing this end by suggesting consolidation after a pattern such as that proposed by the Interstate Commerce Commission should be abandoned. It is evident that such a plan of consolidation can not be made effective without compulsion. Even if compulsion were practicable, the type of consolidation pattern which the Commission obviously favors is undesirable. Since the mere preparation of a consolidation plan—a plan which cannot be and should not be put into effect—has a demoralizing influence upon the railroad business and leads to undesirable changes in the railroad situation, it seems advisable that the consolidation provisions of the Transportation Act—that portion of the law designed to encourage combination by inviting actual consolidation—should be repealed as speedily as possible.

A final question arises concerning the other portion of the consolidation provisions of the Transportation Act, the paragraph which empowers the Interstate Commerce Commission to authorize railroad combination by a process of "unification," under which one carrier may obtain control of another by lease or by purchase of stock. Should this part of the law be retained, or should it be repealed? Or should it be amended in some manner, and if so, in what manner? In other words, to what extent and under what conditions should voluntary combinations, in accordance with proposals submitted by the carriers themselves, be permitted to take place?

Nobody desires that all railroad combination be forbidden. It cannot be denied that there are instances in which combination may be quite beneficial. There are combinations which would strengthen the railroad system as a whole, which would facilitate economy of operation, and which would lead to improvement in the railroad service. It would probably be very helpful if a great many of the short lines which are operated independently, but which are in fact little more than branches of major systems, were to be united with those systems. It is possible that certain combinations should be permitted even though they would involve the elimination of a limited amount of railroad competition or of industrial or market competition. No combination of a plainly beneficial kind should be prohibited; in fact, a way should be provided by which any combination of an indubitably advantageous character may be easily and expeditiously effected.

But this does not at all mean that the Interstate Commerce Commission should have complete discretionary power to authorize any or all voluntary combinations which may be proposed. With such authority the Commission could permit railway integration to proceed after any pattern which it should be disposed to favor. If the consolidation provisions of the Transportation Act were to be repealed and the unification provisions retained, the only material benefit of the change would be the elimination of a preconceived plan. This would be a gain, but it would not be enough. Repeal of the entire consolidation section and return to the Clayton Anti-trust Act, with its definite restrictions, would be preferable to retaining unchanged the unification provisions of the Transportation Act, under which the Commission can exercise arbitrary and final control over the entire matter of railroad combination, though the Clayton Act, permitting, as it does, entire freedom of combination among non-competing lines, is by no means entirely satisfactory.

It is not necessary, however, to make a choice between these alternatives. The chief difference between the Clayton Act and the unification provisions of the Transportation Act is that the former forbids all railroad combinations which would result in the diminution of competition, and says nothing about the combination of non-competing lines, while the latter leaves the whole matter of combination to the judgment of the Interstate Commerce Commission, permitting it to authorize any unification which, in its own opinion, is in the public interest. Neither measure is entirely satisfactory. It is not advisable to forbid every combination which involves a lessening of competition, nor to permit any combination which does not; it is even less advisable to make the Commission the sole and final arbiter of the public interest in railroad combination. The law should be amended to avoid both these extreme positions.

It seems fairly clear what the main provisions of the law should be. The Commission must, as a matter of necessity, exercise

supervision over railroad combination, but it should not have unrestricted freedom of action. The statute should prescribe to a certain extent the conditions under which railroads should be permitted to combine with one another.

In the first place, no combination should receive approval which obviously promises nothing in the way of improved service or more economical operation. The chief reason for a restriction of this kind is to prevent one carrier from obtaining control of another just for the purpose of preventing its acquisition by other interests to which it would be of genuine value. Generally speaking, no railroad should control another road with which it has no direct physical connection, either by junction or by trackage rights over a third line, unless the construction of a connecting line is to be immediately undertaken. No combination should be permitted, the advantages of which are contingent upon some other combination the possibility of accomplishing which is uncertain. Every proposal should be considered solely with reference to its merit under circumstances and conditions about which there is no doubt.

The difficult problem is the matter of competition. Under what circumstances should the Commission be authorized to approve a combination which will obviously have the effect of lessening competition? It would seem here that the determining factor should not be the desires and ambitions of the railroad interests immediately concerned, nor should it be the Interstate Commerce Commission's conception of the general public interest. The decision should accord with the wishes of the business interests which the railroads serve. A proposed combination, which if effected would suppress competition in any substantial degree, should under no circumstances be authorized, unless it has the unqualified endorsement and approval of a very great majority of the commercial, industrial, agricultural and other business interests which would in any way be directly affected. The voice of the shippers and other users of the railroads should exercise controlling influence over decisions respecting combinations which if carried out would eliminate or substantially lessen competition.

The law should permit future combinations to be effected by merger or by "consolidation," as well as by lease or purchase of stock. There seems to be considerable difference of opinion as to the precise meaning of the present law with respect to corporate procedure in connection with consolidation, but since the act imposes conditions of such a nature that technical consolidation of no sort will occur so long as unification by lease or stock purchase is permissible, nothing would be gained by a discussion of this difference. Combination by actual "consolidation" is preferable in many instances to control by lease or stock ownership, because of its permanence and because it permits simplification of capital structure. It sometimes occurs, however, that amalgamation is impossible because of the opposition of small minority stock interests in companies whose corporate life it is proposed to extinguish.

When a certain combination is approved, and it is desirable to effect it by merger or by "consolidation" rather than by "unification," it should be permissible to expropriate in a reasonable manner any dissenting minority interests.

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The foregoing discussion of railroad consolidation has dealt primarily with the general aspects of the subject, but what has been said is applicable where only the interest of a single community is to be considered. An important fact which should be recognized in any endeavor to frame a national railway consolidation policy is that no single formula can be everywhere applied with satisfactory results. Each community has its own transportation problems, and for that reason a consolidation policy should be such that in its practical operation due observance may be given to the needs and desires of every part of the country. In some communities no consolidation whatever is wanted; in some, certain suggested combinations may be desirable, while others may be objectionable. No all-embracing plan of consolidation should be forced upon the country as a whole, and no undesired and undesirable consolidation should be forced upon any community.

It would be a good thing if at the present time every community in the United States would undertake a study of the problem of railroad consolidation as it affects its own welfare, taking into consideration both its present transportation facilities and its probable future needs. It can be taken for granted that the next few years will witness a considerable amount of railroad combination, either under the present law or under another. While it is not likely that the Interstate Commerce Commission's complete plan of consolidation, as it now stands, can ever be fully carried out, yet it is safe to assume, if the law remains unchanged, that some parts of it will be carried out. For this reason, and also because the complete plan is, after all, a tangible result of the endeavors of the Commission to give effect to the consolidation provisions of the Transportation Act, each community should examine the plan carefully and critically, with a view to determining how its own interests might be affected if the plan were fully consummated. From such a study it should be possible to draw intelligent conclusions with regard to the merits of the complete plan; and what is more important, it should be possible to decide upon the advisability of modifying the present policy of railroad consolidation.

What follows expresses briefly the results of an examination of the complete plan with reference to the interests of the City of New York:

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The outstanding feature of the Interstate Commerce Commission's complete plan of railroad consolidation, considered with

reference to the railroad facilities of the Port of New York, is that the plan destroys the independence of the eastern trunk line railroads now having New York as their only seaport, and creates five trunk line systems, each having terminals at two or more North Atlantic ports. Should this plan of consolidation be carried out New York would not possess a single independent railway route to the west.

At the present time there are two important eastern trunk lines based exclusively upon the Port of New York, the Erie and the Delaware, Lackawanna and Western. New York is likewise the only port reached by the rails of the Central Railroad of New Jersey and of the Lehigh Valley, but both these roads are shared by Philadelphia. Trackage rights over the Reading gives the Lehigh Valley entrance to the Pennsylvania seaport, and the Reading has full control of the Jersey Central through the ownership of a majority of its capital stock. The New York, Ontario and Western also has its only outlet at the port of New York, but it is a road of considerably less importance than New York's other lines, and it is controlled by the New York, New Haven and Hartford. Of New York's other trunk lines, the Pennsylvania reaches Philadelphia and Baltimore over its own rails, and the New York Central enters Boston over its subsidiary, the Boston and Albany. The Baltimore and Ohio has no line of its own north of Philadelphia, and relies upon an arrangement with the Reading-Jersey Central system to reach its extensive terminal facilities in New York Harbor.

In the five-system arrangement of the complete plan the Erie and the Delaware, Lackawanna and Western are both united with the Nickel Plate and the Chesapeake and Ohio, which controls the Hocking Valley and the Pere Marquette. These roads, with the exception of the Lackawanna, are dominated by the Van Sweringen interests, though the Erie still retains nominal independence of the others. The Lehigh Valley is made a part of the so-called Wabash-Seaboard system, which receives also the valuable Norfolk and Western, as well as the Wheeling and Lake Erie, the Pittsburgh and West Virginia and the Western Maryland, which together form a line from Lake Erie to Baltimore. The Reading-Jersey Central is awarded to the Baltimore and Ohio, which obtains also, among other lines, the Buffalo, Rochester and Pittsburgh and the Buffalo and Susquehanna. The Pennsylvania is left very much as it is, except that it is shorn of control of the powerful Norfolk and Western, and like the other systems, receives its due share of short lines. The New York Central is awarded the important Virginian Railway.

It will be seen that all five of these proposed trunk line systems touch New York. Two of them, the Pennsylvania and the Baltimore and Ohio, have terminals at Philadelphia and Baltimore. The Wabash-Seaboard enters Baltimore and Norfolk, with trackage rights to Philadelphia, not to mention the South Atlantic and

Gulf ports reached by the Seaboard Air Line. The Chesapeake and Ohio-Nickel Plate, the only one of the five systems to be limited to two seaports, finds its second outlet at Newport News. The New York Central retains control of its present route to Boston and gains access to Norfolk over the Virginian.

It is impossible to discern how these consolidations would result in any advantage to New York or to the railroads which now reach New York over their own rails. Not one of the proposed consolidations finds an excuse in the need of saving a weak railroad. The lines which serve New York are in good condition physically and financially. Especially can this be said of the shorter lines which extend only to the western boundary of trunk line territory. The Reading-Jersey Central, the Lehigh Valley and the Lackawanna, under no stretch of the imagination, can be classified as weak lines. Even the Erie, which in the past has been the victim of financial difficulties, has been built up in remarkable fashion in recent years, and its excellent freight service has earned for it a well deserved reputation as a first class railroad. The merging of the Lehigh Valley in a system with such a dubious future as the proposed Wabash-Seaboard system would probably greatly weaken the Lehigh Valley, even though this system should be able in some manner to get the Norfolk and Western away from the Pennsylvania. The union of the New York Central with the Virginian is not called for because of the weakness of either railroad.

Neither can the proposed consolidations be justified on the grounds of greater economy of operation and increased efficiency of service as far as New York is concerned. Much has been said about the desirability of uniting the shorter trunk lines with roads of Central Freight Association territory—the region immediately west of eastern trunk line territory—because with such combinations a one-line haul would replace the multiple-line haul to which freight must now be subjected in reaching the seaboard over the shorter trunk lines. As a matter of fact, the interchange arrangements among the railroads are so satisfactory that the average time of cars which follow the two-line routes between New York and Chicago, as well as the average time of cars which go between Boston and Chicago over two, three or four lines, is as short as the time consumed in the movement over one-line routes. The rates are the same and the small added clerical expense necessitated by multiple-line movement affects the total expense but slightly. It does not appear that the shorter trunk lines fail to obtain a reasonably fair proportion of the business, and their financial condition does not indicate that they are suffering a loss on the traffic they carry. The competition which the multiple-line routes afford has led to better transportation over all the routes. Nobody will pretend to deny that there is room for improvement in New York's transportation service, but for the most part the immediate difficulties are due to certain shortcomings in connection with the organization and operation of terminal facilities about the port.

The consolidations proposed in the complete plan open no avenues to improved terminal conditions. Whatever can be done to remedy the present situation can be accomplished without consolidation.

That the consolidations proposed in that part of the Commission's complete plan dealing with the railroads of trunk line territory offer no advantages to New York or to the railroads which enter the Port of New York seems readily apparent. But this is not all. Those consolidations, if carried out, hold possibilities of grave injury to New York's trade and industry, injury which might eventually endanger the position which the city so long has occupied as the leading industrial, commercial and financial center of the United States, and the chief gateway of the nation's export and import trade. For the Commission's plan would deprive New York of an asset upon which, more than anything else, the prosperity of the port has been founded, a strong competitive advantage in transportation facilities. The plan would not only eliminate much of the inter-railway competition which has stimulated improvement in New York's transportation service; it would merge New York's hitherto independent railroad lines into systems serving the other North Atlantic ports and thereby weaken New York's position with respect to market and industrial competition.

New York owes her pre-eminent rank among American cities to her transportation facilities. Natural waterways made New York the leading commercial city of the United States before the close of the eighteenth century. The first census of the United States, and the early statistics of foreign commerce collected by agencies of the Federal Government, indicated that in 1790 Philadelphia and her immediate suburbs had a larger number of inhabitants and a greater volume of exports and imports than New York could claim. But by 1800 Philadelphia was definitely relegated to second place; by 1810 New York's population was nearly twice that of Philadelphia, and the total foreign trade of the State of New York, most of which passed through the port of New York, was some sixty per cent larger than the foreign trade of Pennsylvania. The reason for the surprisingly rapid growth of New York, as compared with that of Pennsylvania's chief port during the early years of the nation's history was to be found in New York's better facilities for transportation. The lands about Philadelphia were perhaps more productive, acre for acre, than the lands in the vicinity of Manhattan Island, but with her extensive system of natural waterways—the Hudson River, Long Island Sound, the Staten Island Kills, and Newark and Raritan bays with their rivers—New York had an accessible hinterland, compared to which the region served by Philadelphia waterways was quite small.

The competitive advantage which New York held by reason of her natural waterways was vastly augmented by the construction of the Erie Canal. This waterway, completed in 1825, was conceived and constructed primarily for the purpose of aiding the economic development of the central portion of the State of New York between Albany and Buffalo, by making it possible for the products of this region to be cheaply transported to tidewater. This purpose the canal easily fulfilled, to the great benefit of the State and the City of New York. But the influence of the Canal soon spread far beyond the boundaries of the State. It is to be doubted if any single human enterprise ever had a greater effect upon the history of a country than the Erie Canal had upon the history of the United States. It opened for settlement all the enormous fertile region about the Great Lakes, a region which had remained almost untouched while settlers by the thousands had poured into the lands of the Ohio Valley, lands much less productive than those about the lakes, but possessing what the lake district did not have, an unimpeded outlet to the sea. The amazing growth of the lake region during the thirty years following the completion of the Erie Canal was one of the most significant and important occurrences in American economic history. The canal created a new economic empire, rich and productive beyond imagining.

The steam railroad destroyed New York's virtual monopoly of direct trade with the Middle West. When waterways were the principal agencies of long distance transportation of freight, New York's chief rival ports, Boston, Philadelphia and Baltimore, were obliged to stand helplessly by while an ever swelling volume of domestic and foreign trade swept New York far ahead of them in the contest for commercial leadership. The railroad gave the other ports a means of sharing in the great internal commerce which New York's initiative and enterprise had originated and developed, and they were not slow to take advantage of the opportunity which the new means of transportation presented.

They did not seem content, however, merely to share. Each of the three ports would have been glad to occupy the dominating position which New York had so long enjoyed. For a time Philadelphia and Baltimore each had an exclusive rail route to the west, the Pennsylvania terminating at the former city and the Baltimore and Ohio at the latter. Boston, also, by connection with the Grand Trunk, could reach the west over a line not based upon New York. Subjected to vigorous pressure from the ports they served, and keenly desirous upon their own account of getting all the traffic that was available, these railroads embarked upon a campaign, the purpose of which was to divert trade from New York, and, if possible, destroy the supremacy of that city. But New York, too, had exclusive rail connections with the west, the New York Central and the Erie, which were taking the place of the canal as the highway to the interior; and what time these two roads could spare from fighting each other they devoted to answering the challenge of the railroads leading to the other ports. They met each rate reduction, cut for cut, in an effort to preserve their

own business and protect the commerce of New York. American commercial history has recorded few episodes more exciting than the violent and bitter rate wars which the trunk line railroads waged during the late sixties and early seventies.

The destructive effect which these rate wars had upon the finances of the carriers and their demoralizing influence upon business in general led eventually to the negotiation of an agreement for the adjustment and stabilization of rates. This agreement, reached in 1877, gave effect to the well-known system of seaboard differentials, under which Philadelphia and Baltimore have slightly lower rates than New York, and Boston slightly higher rates than New York on eastbound domestic traffic and in general the same rates as New York on westbound and export traffic. None of the four ports were satisfied with the original adjustment. Baltimore and Philadelphia felt that their differentials below New York should be greater; Boston contended for lower rates than those applying to New York; New York took the stand that there should be no differentials whatever in favor of the other ports. A rate war broke out again, and the entire matter was submitted in 1882 to a board of arbitration for settlement. The arbitrators left the differentials undisturbed.

After the Pennsylvania and the Baltimore and Ohio each gained a firm foothold in New York, the competitive struggle among the railroads tended to diminish somewhat in its intensity, though there were occasional outbursts, chiefly on the part of the lines interested in the trade of Boston. But if the carriers were able eventually to compose their differences in a satisfactory manner, the four seaboard cities were not. They have never concealed their dissatisfaction with the adjustment, and on several occasions the differentials have been the subject of complaint before the Interstate Commerce Commission. Only last December the Commission dismissed a complaint in behalf of Baltimore seeking an increase in the differentials on export and import traffic passing through that port to and from the Middle West. While the Commission so far has made little change in the differentials, it is a noteworthy fact that it seems to be weakening in its traditional position on the question. The decision last December reversed by a seven to four majority the opinion of the examiner before whom the case had been tried, and one of the seven, in a brief concurring opinion, based his decision primarily upon the insufficiency of the record. The four dissenting commissioners were emphatically of the opinion that the differentials against New York should be substantially increased.

An interesting and highly important aspect of the differential problem is that if distance alone were taken as the determining factor in establishing rate relationships, Philadelphia and Baltimore would long ago have received greater differentials and would probably have been able to divert from New York a much greater amount of trade than they have been able to capture since railroads first gave them access to the Central States. If differences in the cost of transportation, represented by factors other than distance, were permitted at all times to exercise a controlling influence over rate relationships, New York would probably long ago have been placed at a greater competitive disadvantage in rates than now prevails. But so far, at least, neither distances nor other indexes of relative cost have been the only matters to receive consideration in the determination of relative rates. The arbitrators who heard the differential controversy in 1882 pointed out that the most important element in the problem of making rates to the rival North Atlantic ports was not distance nor the cost of transportation, but competition. This meant that so long as New York had independent rail routes to the west, the competitive interests of those railroads and of the city constituted a factor which could not be ignored in the rate adjustment.

It is necessary for New York commercial interests to bear in mind that in the protracted struggle over the seaboard differentials, the strength of New York's position has been due solely to the fact that some of the railroads reaching the city have their only seaboard terminals on New York harbor. One of the most significant statements of the leading dissenting opinion in the recent Baltimore case was:

"If New York and Baltimore were both served by only a single carrier, I should have no hesitation in finding that the failure to give this difference in service cost adequate recognition in the present export and import rate structure constitutes undue and unreasonable preference of one locality to the undue and unreasonable prejudice and disadvantage of another . . ."

If there is one fact which the history of New York's past development emphasizes, if there is one lesson which her years of competitive struggle teaches, it is that the existence of transportation facilities whose interests were synonymous with the interests of the port of New York has been the most vital factor in New York's commercial and industrial growth. The worst thing that could happen to New York, next to losing her transportation facilities altogether, would be for her independent railroads to lose their independence and be merged into systems serving the ports which for more than three quarters of a century have bent every effort to depose New York from her position of commercial supremacy.

What has just been said is not to imply that Boston and Philadelphia and Baltimore have tried to treat New York unfairly or unjustly. They are entitled to use every legitimate means at their command to build up their own trade and industry, even at the expense of New York. They have the right to usurp New York's position—if they can do it. But New York has an equal right to maintain the place she has won for herself, and it would be most unwise for her to sacrifice her greatest asset in the competitive struggle.

For this reason, if for no other, New York should strongly disapprove of the complete plan of railroad consolidation adopted by the Interstate Commerce Commission, and exert every effort to prevent its ever being put into effect. A plan more replete with possibilities of harm to New York's trade could hardly have been designed. And in passing it may be said that to a great extent the interests of Boston, with respect to the complete plan of consolidation in trunk line territory, are identical with the interests of New York.

So far as New York is concerned no consolidation is needed or wanted which will unite the roads which reach the port from the west with other strong railroads in trunk line territory. The competition among the present lines assures New York of good railroad service, and the continued independence of the lines based exclusively upon the port constitutes New York's strongest protection against the competitive thrusts of rival ports. If the railroads which enter New York must be consolidated in some fashion, there are combinations which would be more satisfactory to New York than those suggested in the Commission's plan. For example, New York's interests would be better conserved by the assignment of the Central Railroad of New Jersey to the New York Central rather than to the Baltimore and Ohio, provided the Virginian should be made a part of some other system. The New York Central is traditionally a New York railroad, and no good purpose would be served by giving it an outlet on Hampton Roads. The suggested combination of the New York Central and the Jersey Central would create an additional single-line route to the west, of which the Baltimore and Ohio has made so much, and the line would be a part of a system whose interest is centered in New York more than the interest of the Baltimore and Ohio ever has been or ever will be. If the Lehigh Valley and the Lackawanna must lose their individuality, why not unite them together into a strong but fairly small eastern system based on New York instead of making them parts of systems whose main outlets to the sea are south of New York? The combinations here suggested, as well as a few others, not mentioned, would come more nearly preserving competition "as fully as possible" and maintaining "existing routes and channels of trade and commerce" than the combinations given in the complete plan, and they would not be nearly so detrimental to the interests of New York.

But there is no particular scheme of consolidation, involving the trunk line railroads, which New York should favor at all, because she should be averse to the absorption of any of her present shorter lines into some great system. The commercial interests of New York should insist that the Lehigh Valley and the Lackawanna remain free of control of the large trunk line systems, just as the commercial interests of Philadelphia are insisting that the Reading-Jersey Central should retain its freedom and not pass to the control of the Baltimore and Ohio or any other great system. Baltimore, too, would be better off if she had a more vigorous trunk line based exclusively upon Baltimore. After the Baltimore and Ohio began to transfer a portion of its affections to Philadelphia and New York, construction of the Western Maryland was pushed ahead to give Baltimore an exclusive route to the west, but the line never had an extensive development because of the opposition of its powerful rivals. One of the results of the turmoil started by the publication of the tentative plan of consolidation in 1921 was the purchase of a controlling interest in the Western Maryland by the Baltimore and Ohio, although the purchase was plainly a violation of Federal law and of the laws of Maryland. The complete plan places the Western Maryland in the Wabash-Seaboard system, restoring to Baltimore a road which is competitive with the Baltimore and Ohio and the Pennsylvania, but making it a part of a widely scattered system serving ports all along the Atlantic Coast. Boston and other New England communities are acting wisely in insisting that New England's leading railroads remain free of trunk line control, and it would be well for New England if the present process of absorption of the New Haven and the Boston and Maine by the Pennsylvania were stopped, and the Pennsylvania made to relinquish the stocks it has already acquired in those lines. It is not necessary for every railroad system in trunk line territory to have an outlet at two or three ports. Competition is preserved in better fashion, and even greatly stimulated if each port has at least one railroad of its own. The need of New York for an exclusive road is imperative.

New York should oppose the consolidations suggested in the complete plan adopted by the Commission, and in any other plan providing for the absorption of the port's railroads into a few huge eastern systems, not alone because such consolidations would imperil the city's competitive position, but because they would restrict the freedom of future railroad development. Railroad construction in the east should not be regarded as finished. The time is not far distant when there will be need for a substantial expansion of the transportation facilities which connect the Atlantic seaboard with the region west of the Appalachian highland.

There has been no other physical problem of greater importance in the economic history of the United States than that of providing transportation facilities necessary to surmount this barrier. From the time when the United States became an independent nation the establishment of adequate highways of trade and travel between the east and the west became a matter of outstanding economic and political significance. Washington called public attention again and again to the necessity of opening avenues of commerce across the highland which separated the Ohio Valley and the lands about the Great Lakes from the original thirteen

States. Before he became President he devoted much of his time and a considerable part of his personal fortune to a project of waterway improvement in Virginia, designed to afford easier access to the west. He went over much of the route subsequently followed by the Erie Canal and urged the construction of that waterway long before the work was actually undertaken. During the years of his presidency he never lost sight of the need of the west for an unrestricted and unimpeded outlet to the ocean. By diplomatic negotiations he brought about the opening of the Mississippi River by the Spanish Government, and he favored legislation providing for the building of highways across the Appalachian highland at the expense of the Federal Government. Washington's keen interest in the west was something that set him apart from many of the other leading statesmen of his time, who were inclined to be much more interested in the political and commercial relations between the United States and Europe. He realized, more than anybody else in his day, that the future of the United States lay toward the west, and for that reason the construction of means of transportation leading to the lands beyond the Appalachian barrier was to him a problem of the greatest national importance.

How New York found the first, and for many years the only solution of this problem, by constructing the Erie Canal, has already been mentioned, and something was said of the influence of this waterway upon the development of the west and upon the industrial and commercial development of the State and the City of New York. The material progress which the canal started and fostered, the steam railroad carried forward on a still greater scale, and the east and the middle west, as they were long known—the two districts occupying the northeastern portion of the United States, divided from each other by the Appalachian highland—became the most productive, the most populous and by far the wealthiest region of America.

The thirteen northeastern States and the District of Columbia, comprising that part of the United States north of North Carolina and east of Ohio and Kentucky, though having an area of only 228,226 square miles, which is but 8 per cent. of the total area of the continental United States, had a population in 1928, as estimated by the Bureau of the Census, of 40,212,428, or a little more than one-third of the population of the entire country. The total wealth of the United States in 1929, as given in an estimate published in February, 1930, by the National Industrial Conference Board, amounted to $353,520,000,000 and of this amount 37.6 per cent. or $132,917,000,000 was attributed to these northeastern States. The midwestern States—Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Kansas, Nebraska and that part of Missouri lying

north of the Missouri River, have an area of 711,300 square miles or 23.8 per cent. of the country's total area. The number of inhabitants in these States was estimated to be 35,540,608 in 1928, or 29.6 per cent. of the country's entire population; while the wealth of this district in 1929 was given as $119,703,000,000 or 33.9 per cent. of the total wealth of the nation. The northeastern and midwestern States together accounted for 31.9 per cent. of the country's area, but they had 63.1 per cent. of its people and 71.5 per cent. of its wealth.

Since the time when settlers from the seaboard pushed their way westward through the valleys and passes of the Appalachian highland, the regions occupied by these two groups of States have been economically dependent upon each other. This interdependence became steadily greater as better highways—first turnpikes, then canals, and finally steam railroads—were built across the mountain barrier to provide the transportation service needed for the development of trade. The northeastern States have become primarily a manufacturing, mining and commercial district. They contain 45.4 per cent. of all the manufacturing establishments of the United States, giving employment of 47.4 per cent. of the wage-earners engaged in manufacturing, and turning out products having 44.3 per cent. of the value of all the manufactures which the nation produces. Of the merchandise exports of the United States in 1929, amounting in value to $5,128,809,279 the value of those passing out through the seaports of these States was $2,193,316,657; the value of the merchandise imports entering through the same ports was $2,625,258,499 constituting more than one-half the value of all the merchandise imports of the country, amounting to $4,091,120,064.

This great industrial and commercial district produces only a small part of the food which its inhabitants consume. A large part of its subsistence it draws from the midwestern States. It procures from them, too, a substantial portion of the raw materials for its manufacturing plants, particularly the iron ore for its blast furnaces, and it also purchases a large part of their automobiles, rubber tires, furniture, building materials and supplies, and other manufactures. On their part, the northeastern States supply large quantities of manufactured goods for the inhabitants of the midwestern group, and provide the ports through which they send a large portion of their surplus products to foreign markets and through which they receive most of the foreign manufactures, raw materials and food products which they consume.

The vast quantities of goods exchanged between these two groups of States and the foreign exports and imports of the western group, which enter and leave the country through the North Atlantic ports, must all be transported across the Appalachian highland. Added to this traffic across the mountains, moreover, is

a very large tonnage made up of the products moving in both directions between the northeastern States and the States of the west and southwest. There is no way of ascertaining the exact amount of freight which is transported each year across the highland, but it is well known that the traffic flow is one of the heaviest in the country. This is clearly indicated in the general statistics of the country's railway mileage and freight tonnage.

Of the 248,286 miles of railway line in the continental United States on December 31, 1928, 39,769 miles were in the northeastern States and 90,323 miles in the midwestern States. These two groups, with less than a third of the total area of the country, have more than half the railway line mileage, and a considerably greater proportion of the trackage. Despite the seeming abundance of railway mileage, so great is the commerce of this region that the density of traffic on its railways is much greater than it is on the railways of the remaining two-thirds of the United States. The traffic statistics for the two groups of States as a whole cannot be given. But the Class I railroads of the eastern district, made up of the territory lying east of the Mississippi River and north of the Ohio and James rivers, originated 545,968,387 tons of freight in 1928, as compared with 739,974,589 tons originated in the southern and western districts, and the total revenue tonnage transported on the eastern railroads amounted to 1,238,607,198 tons, as compared with 1,123,015,438 tons carried on the lines of the other two regions. The revenue ton-mileage figures for the same year showed 183,517,857,611 ton-miles on the eastern roads, as against 249,397,326,715 ton-miles on the roads of the west and south. The eastern roads carried 3,091,534 revenue ton-miles per mile of road, which, compared with 2,011,439 ton-miles per mile of line in the south and 1,165,653 ton-miles per mile of road in the west, showed that the traffic density on the eastern roads was considerably greater than the traffic density on the railroads in the remainder of the country.

The density of traffic on the eastern railroads has been increasing for many years and it has long been apparent that more railroads will have to be built in this region. As far back as 1913 the leading officials of the railways in this section of the country began to discuss in serious fashion the approaching necessity for additional facilities. The earnest appeal which was made at that time for a five per cent. increase in freight rates was based almost entirely upon the need for a revenue which would make it possible to secure capital funds for future construction. That the railway executives, who then testified to the inadequacy of the railroad facilities in the east, were correct in their views became all too apparent after the war broke out and the railroads there were taxed far beyond their capacity. In the hearings on the Commission's tentative plan of consolidation there were several eastern

railway executives who again emphasized the fact that more railway facilities were needed in the eastern district.

Fortunately for the industry and commerce of the country, the acute condition which developed during the war has not been repeated. Because of various shifts and changes in industry, and because, too, of the use of other means of transportation, the growth of railway freight traffic has proceeded at a somewhat slower pace than was expected ten years ago. There has even been a decline in the railway passenger business. Moreover, the railroad service has been greatly improved, due to the heavier loading of cars, the use of more powerful locomotives, and a greater efficiency of management and of labor. For these reasons the railroads have found it possible so far to meet the demands imposed upon them. But the present facilities will not always suffice. The population of the country is steadily growing, and the production of goods must increase. Although the density of traffic has risen somewhat more slowly recently than in past years, nevertheless the trend is upward, and sooner or later the eastern district will be confronted with a need for additional means of transportation, and particularly for additional means of transportation across the Appalachian barrier.

When the time comes to supply this need the railroad structure of the east should not be crystallized and so dominated by a few powerful, intrenched interests that it will not be possible for new facilities to follow routes which, if adopted for main lines across the Appalachian highland, would make it possible to give New York a much more economical and expeditious service than is now available. New York and the nation as a whole are entitled to the best transportation facilities that engineering science and skill can provide, regardless of the vested interests which have control of existing facilities.

It is an interesting fact that New York has never had a direct railroad line to the region beyond the mountains. The Baltimore and Ohio and the Pennsylvania, as originally planned, were based upon Baltimore and Philadelphia respectively, and later reached out for a foothold in New York for competitive reasons. The Erie was designed to provide a transportation service for the southern tier of counties of the State of New York, in order to give that region advantages as nearly equal as possible to those obtained by the central counties by reason of the construction of the Erie Canal. The New York Central was started at Albany primarily as a passenger road between that city and Schenectady; other short lines carried it to Buffalo; and the construction of the Hudson River railroad was a somewhat tardy afterthought. The shorter New York lines were intended originally either for purely local needs or for the transportation of coal in the mining regions of eastern Pennsylvania. Every railroad that reaches New York harbor was started originally with

no thought whatever of establishing an all-rail route between the nation's greatest seaport and the commercial centers of the midwestern States. This is true even of the railroads having New York as their only seaport.

The reason for this peculiar situation is fairly simple. At the time railroad construction began, it was not thought that railroads could ever compete successfully with inland waterways in the transportation of freight. Railroads were for use only where, because of topographical conditions, waterways could not be built. New York had a magnificent waterway to the west and the construction of a direct rail route to compete with the Erie Canal for the long distance carriage of freight between the seaboard and the middle west was simply an unthinkable project. The result was that the selection of the original eastern rail routes to the distant west was made with no reference at all to the needs of New York. Later, when it was discovered that the railroads were superior to canals and rivers as carriers of freight, the established lines hastily pushed their way to New York harbor either by construction or by consolidation with some of the roads which had been built to serve the city's local transportation needs. The Erie Railroad, for example, had its original eastern terminus at Piermont, several miles up the Hudson River from Manhattan Island. It secured a terminal in New Jersey by acquiring control of some short local lines between Jersey City and Suffern, New York.

Thus it was that a direct line from New York to the Middle West was never built, and New York's rail routes to that region have always been considerably more roundabout than necessary. The great circle distance between New York and Chicago is 742.6 miles. The distances between the two cities over the present rail routes vary from 899 miles over the Pennsylvania, which is the shortest, to 986 miles over the Erie. The New York Central's route is 948 miles long and that of the Baltimore and Ohio 974 miles long.

The railroad routes from New York to the west are more devious than they need be, not alone because they were located without reference to New York. Some of the routes are roundabout because of local conditions which governed their selection and because at the time the roads were built engineering science and the methods of construction available were not equal to the task of building by more direct routes, and even if they had been, not enough capital could have been procured to defray the expense. Neither Baltimore nor Philadelphia obtained originally as direct a route westward as would have been possible with an abundance of capital and a knowledge of modern construction methods.

When the Baltimore and Ohio was first projected in 1827 as a rival transportation line to the Chesapeake and Ohio Canal,

which was also being planned at that time, it was somewhat boastfully advertised that the railroad would be a direct, straight highway to the Ohio River, far superior to the canal, which would have to follow closely the turns and twists of the winding Potomac. It took but little investigation, however, to convince the Baltimore and Ohio engineers that the initial plans for the road were far too ambitious, and representatives of the company quickly took the precaution of purchasing a right of way through a part of the Potomac Valley, over a route which was not nearly so "direct" as the one originally advertised. Incidentally, the purchase of the right of way was carried out secretly. When officers of the canal company, who felt that they had a prescriptive right to the location invaded by the rival carrier, discovered what had happened, they brought suit to have the purchase set aside. The ensuing litigation led to investigations by the Maryland legislature and by Congress, all of which delayed for several years the building of both the canal and the railroad.

The Pennsylvania Railroad owed its route to the location of the famous Main Line of Public Works, which the State of Pennsylvania built between Philadelphia and Pittsburgh. This highway, which Pennsylvanians hoped would be able to compete with the Erie Canal as a route to the west, was part railroad and part canal. There were two stretches of canal, one extending from Columbia up the Susquehanna and Juniata rivers to Hollidaysburg, and the other down the Conemaugh and Alleghany from Johnstown to Pittsburgh. A railroad ran from Philadelphia to Columbia, and a portage railroad, containing several inclined planes up which cars were drawn by cables and stationary engines, provided a connection over the mountains between the two sections of canal. This cumbersome transportation system, completed in 1834, did not turn out to be highly successful, and when later the possibility of transporting freight over long distances by steam railroad was demonstrated, the legislature of Pennsylvania chartered the Pennsylvania Railroad Company to build a railroad from Harrisburg to Pittsburgh, which in connection with a line between Harrisburg and Lancaster and the State's Columbia road would create an all-rail route between Philadelphia and Pittsburgh. The Pennsylvania later bought the Main Line of Public Works, and came into possession of a railroad across the State, following a route which had been largely determined by the location of the combined rail and water line constructed by the State government.

The conditions which controlled the location of railroads and the difficulties of construction in the early years of American railroad development not only caused the eastern roads to follow indirect routes across the Appalachian highland, but also to follow routes, where, in order to hold construction costs down to what was a reasonable figure, it was necessary to operate over heavy grades. For a time the Baltimore and Ohio had to use

inclined planes on a portion of its main line. By relocating and reconstructing, making great cuts and fills and building tunnels, viaducts and bridges, nearly all the trunk line railroads have reduced their original grade and curvature, and have also shortened their routes a little, but all of them are still handicapped by heavy grades. Even the New York Central, with its "water-level route", the summit of which is just under a thousand feet above sea level, has a 0.4 per cent. eastbound grade just east of Syracuse and another near Selkirk, a 0.6 per cent. westbound grade near Selkirk and two 0.5 per cent. grades between Albany and Buffalo. The Erie, with a summit level of 1429 feet, has on its line between Buffalo and Port Jervis six eastbound grades of more than 0.5 per cent., the steepest being 1.4 per cent. Westbound its heavy grades are even more frequent, although the steepest is 1.1 per cent. The Pennsylvania in rising to its summit level of 2160 feet, where it crosses Gallitzin Mountain, has an eastbound ruling grade of 1.2 per cent. to overcome, and a westbound ruling grade of 1.7 per cent. The Baltimore and Ohio, with a summit level of 2,270 feet, has several stiff hills to climb, the steepest eastbound grade being 1.3 per cent. and the steepest westbound 1.8 per cent. The westbound grades over these roads are not of such great importance as the eastbound, because the freight movement toward the seaboard is four times as heavy as the movement in the opposite direction, but all the heavy grades slow up the movement of traffic and add to the expenses of operation. The time of transportation between New York and the midwestern States and the costs of transportation are both greater than they should be, because of the routes which present railroads follow.

It should not be necessary for New York always to depend entirely upon the existing lines for railroad connection with the midwestern States. There is an assured future need for additional railway facilities across the Appalachian highland, and there is no reason why a line should not be constructed to give New York a more direct route to the great interior valley with which she has such an enormous trade. New York should in the future have a more direct line, and it should be built according to the highest standards of modern railroad engineering science, to give a service in every respect superior to the service hitherto available. Though it may be that the construction of an entirely new line across the mountain barrier would entail an expense somewhat greater than that of building additional tracks along the routes of present lines, yet the extra cost would soon be repaid many times over because of the saving in time and expense of operation which the new line would permit.

Of the practicability of a more direct line across the Appalachian ranges there is no question. Many years ago, E. H. HARRIMAN, the greatest railroad genius of his time, impressed

by the peculiar situation in which the accidents of early railroad development had placed New York, caused an engineering survey to be conducted in central Pennsylvania, for the purpose of finding out if it would be possible to build a road across that State, which would serve as part of a trunk line based primarily upon New York. This survey showed that a line could be built between Easton and Allegheny City, which would shorten by seventy-five miles the railroad distance between New York and points in the middle west. Mr. HARRIMAN obtained a charter for such a road, but he was unable to undertake its construction, and after his death the project was for a time permitted to languish.

A line following the route located by Mr. HARRIMAN'S engineers would do much more than shorten by seventy-five miles the distance from New York to Chicago and other middle western cities. Constructed by methods now available, a line could be built over this route, at reasonable cost, which would cross a summit level of 1,560 feet with no eastbound grade greater than 0.3 per cent., and no westbound grade above 0.4 per cent. Such a road would operate much more economically, mile for mile, than any of the other trunk lines. It would be greatly superior, from the standpoint of distance, curvature and grades, to the direct line which either the Baltimore and Ohio or the New York Central could establish by obtaining control of the Central Railroad of New Jersey.

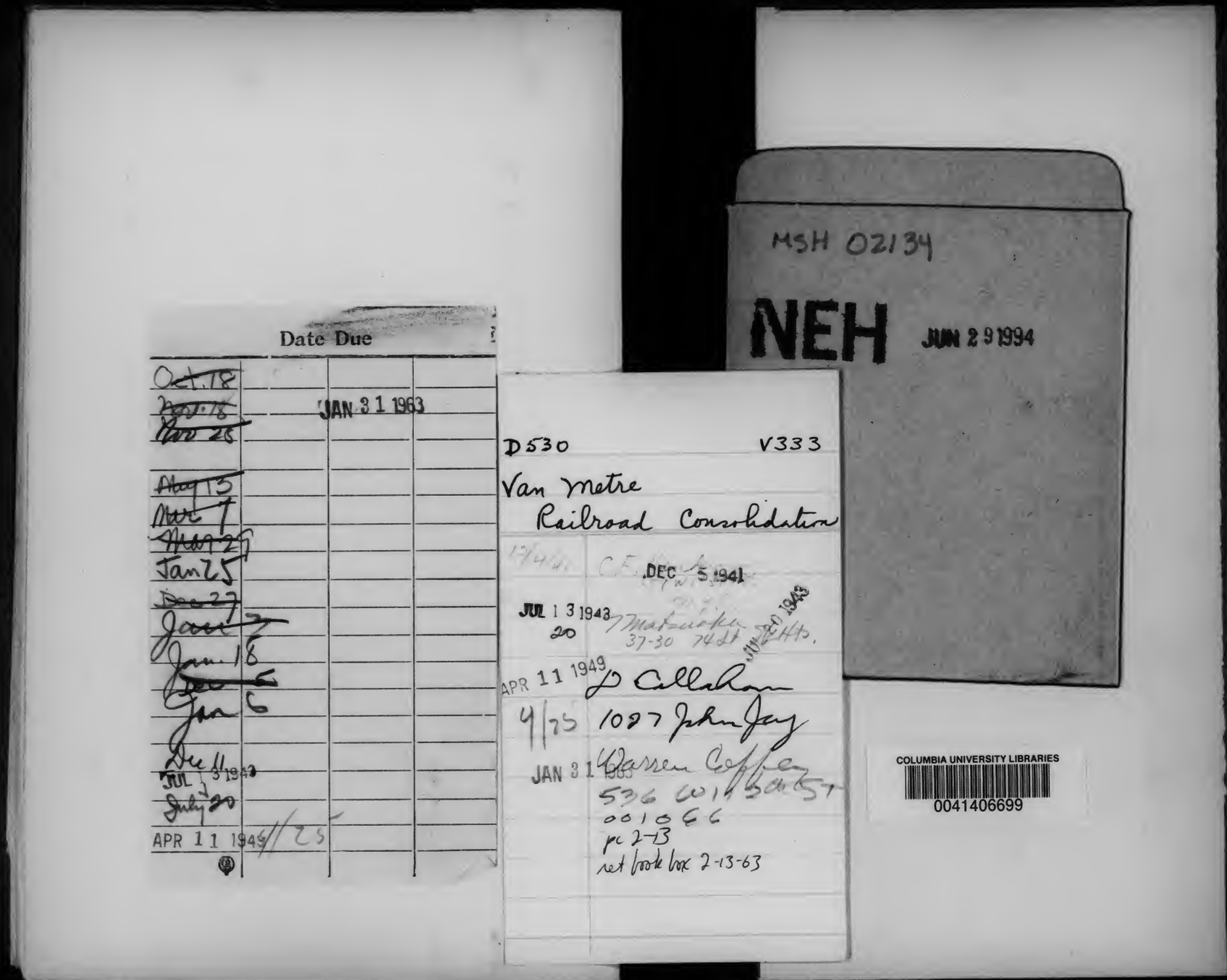
The advantages which such a line would have for New York are obvious. It would bring New York as near to Chicago as Philadelphia is by the Pennsylvania Railroad. It would provide a more expeditious and more economical service between New York and the midwestern States; and it would greatly strengthen New York's competitive position in rate controversies affecting the North Atlantic ports. Such a railroad would be of much value to all the commercial interests of the northeastern and midwestern States. It would also be a most important military asset in case the nation should again become involved in war. The fact that it would be a distinct new line and not merely an addition to the facilities of existing lines would greatly enhance its military value.

The opposition to the construction of a direct railroad across the State of Pennsylvania comes almost entirely from the existing trunk lines, whose executives fear that their roads would be adversely affected by such a competitor. The present lines have no right to block progress by preventing the construction of an obviously superior transportation facility merely because of a desire to exclude all competition. Should these trunk lines be united into a few gigantic systems, there is little doubt that they would be able to thwart the building of a new railroad affording to New York a more direct and more economical transportation route across the Appalachian highland. This is one of the strongest

reasons why New York should disapprove of the Commission's complete plan of consolidation.

New York's commercial prosperity in the future will be, as it has been in the past, largely a matter of transportation. Rival ports will not slacken in their efforts to attract the city's trade. The attempt to obtain a rate adjustment which will neutralize the competitive advantages which New York has so long enjoyed will continue, and it will grow in vigor and intensity with the passing of time. The increasing tendency of rate regulating authorities to emphasize the cost of service as reflected in the length of haul, as the most important factor to be considered in determining rate relationships, indicates that New York has need not only of more adequate transportation but of transportation which can be produced at a lower cost than the services available over present routes. The progressive improvement of her transportation facilities is what New York needs and desires; and railroad consolidation would hamper rather than stimulate such improvement.

A less costly service between New York and the west can be provided if a shorter, more direct railroad, having easier grades and gentler curvature than the existing lines possess, is built across the Appalachian highland. A less expensive service might also be made available if the Barge Canal were deepened and otherwise improved so that lake vessels could be operated between New York harbor and ports on the Great Lakes. The completion of either or both of these projects would enable New York to maintain an effective defense of her commercial leadership. That New York will fail to employ these means, or some other means of equal promise or better, of preserving her place as the nation's chief commercial and financial metropolis is not to be expected. And it is inconceivable that New York should approve of a program of railroad consolidation which would only impede the construction of facilities of such vital importance to her future prosperity.



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